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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,790	02/15/2007	Michele Lapelosa	NIT004WUS/AG/bp	5876

21254 7590 12/21/2010

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EXAMINER	
SMITH, NICHOLAS A	

ART UNIT	PAPER NUMBER
1723	

MAIL DATE	DELIVERY MODE
12/21/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,790	LAPELOSA ET AL.	
	Examiner	Art Unit	
	NICHOLAS A. SMITH	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/15/06, 10/20/09, 6/30/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I in the reply filed on 20 October 2010 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP60-32367 (JP'367) as submitted on Applicant's Information Disclosure Statement on 20 October 2009 in view of Heller (US 4085867 A).

4. In regards to claim(s) 1, JP'367 discloses a torch (in Fig. 7) for the surface treatment of metals, comprising a peak-paddle (**5**) connected to a unipolar current supply (**1**) with the other pole being connected to the metal surface being treated (**2**), with electrolytic fluid to be delivered from a tank (electrolyte reservoir **6**) into a channel (**4**) inside the torch, wherein the torch comprises a device for controlling delivery of the electrolytic solution (**18**, trigger, **15**, spring and **13**, piston) a manual pump arranged in any part of the supply ducts, the pump comprising a first non-return valve (**16**) and a second non-return valve (**14**), arranged upstream and downstream, respectively of the pump body (12), i.e. the shell.

5. However, JP'367 does not explicitly disclose the shell having a flexible zone.

6. Heller discloses an apparatus for manual deliver of fluids by pressurizing (same field of endeavor as JP'367) a shell that is located between two check valves (col. 2, lines 18-32). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 with Heller's flexible zoned shell because such a flexible shell can avoid the problems associated commonly with piston pumps (Heller, col. 1, lines 28-34).

7. In regards to claim(s) 11, JP'367 discloses the tank (**6**) having a rigid casing; the modification of Heller's shell is a mobile partition with a surface in contact with atmospheric pressure. . In regards to the limitation "for the re-entry of air," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

8. In regards to claim(s) 12, JP'367 discloses the tank (**6**) having a rigid casing; the modification of Heller's shell is a mobile partition in contact with a pressurized chamber (while actuated); the chamber pushes back upon said partition during the delivery of electrolytic solution.

9. Claims 2-6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'367 in view of Heller and in further view of Polan (US 6158620 A)

10. In regards to claim(s) 2, JP'367 in view of Heller does not explicitly disclose the shell comprising handgrip shaped with rigidifying zones and zones with concentrated flexibility.

11. Polan discloses an apparatus for dispensing fluid (same field of endeavor as Heller) that include handgrip actuated (thus shaped; col. 1, lines 16-29) and with rigidifying zones and zones with concentrated flexibility (abstract). It would have been

obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller with Polan's shape because such a shape allows for a controlled collapse and rapid refill of the shell (Polan, abstract).

12. In regards to claim(s) 3, the combination of JP'367 in view of Heller and in further view of Polan would include the shell just downstream of the first non-return valve, the chamber located on the central metallic body of the torch of JP'367.

13. In regards to claim(s) 4, the combination of JP'367 in view of Heller and in further view of Polan would include the shell shaped to have a chamber at the second non-return valve and at the flexible zone as taught by Heller in Fig. 3.

14. In regards to claim(s) 5, the combination of JP'367 in view of Heller and in further view of Polan would include the flexible zoned shell pump within the metallic body of the torch thus having preferential sealing zones (shell attached annularly within the torch) between an inside of the shell and the metallic body through annular seats on the metallic body and corresponding annular inner edges in the shell, since the shell would be inline with the torch just as the pump body (with piston/trigger) was inline with the torch in JP'367.

15. In regards to claim(s) 6, JP'367 in view of Heller in further view of Polan discloses include the flexible zoned shell pump within the metallic body of the torch thus having preferential sealing zones (shell attached annularly within the torch) between an inside of the shell and the metallic body through annular seats on the metallic body and corresponding annular inner edges in the shell, since the shell would be inline with the torch just as the pump body (with piston/trigger) was inline with the torch in JP'367;

annular grooves are on the outside of the shell as disclosed in Heller, Fig. 3. The limitation "for an application of a belt and locking rings of the shell" is an intended use of the apparatus and therefore does not patentably distinguish from the prior art. See MPEP 2114.

16. In regards to claim(s) 13, JP'367 discloses the tank (**6**) having a rigid casing; the modification of Heller's shell is a mobile partition. The partition would be equipped with a union hole for at least one non-return valve. However, JP'367 in view of Heller does not explicitly disclose a return shaft of the partition.

17. Polan discloses an apparatus for dispensing fluid (same field of endeavor as Heller) that include handgrip actuated (thus shaped; col. 1, lines 16-29) and with rigidifying zones and zones with concentrated flexibility (abstract). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller with Polan's shape because such a shape allows for a controlled collapse and rapid refill of the shell (Polan, abstract). The rigidifying zones are return shafts of the partition, meeting the claimed limitation. The return shafts would allow for the reloading of the tank with the suction of the electrolytic solution.

18. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'367 in view of Heller and in further view of Hoffman et al. (US 20020157964 A1)

19. In regards to claim(s) 8, JP'367 discloses an electrolyte supplying aperture, but does not explicitly disclose a tank removably connected to the torch.

20. Hoffman et al. discloses a method of clean conductive bodies using an electrolytic solution (abstract; same field of endeavor as JP'367). Hoffman et al.

discloses a tank attached to a pump supplying electrolyte (para [0066]). It would have been obvious to one of ordinary skill in the art to modify the torch of JP'367 in view of Heller with Hoffman et al.'s tank because Hoffman et al. teaches such a tank effect for holding electrolyte (Hoffman et al., para [0066]). A tank that is attached to a system is inherently removably connected.

21. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'367 in view of Heller, in further view of Hoffman et al. and in further view of Akio (US 3150012).

22. In regards to claim(s) 9, JP'367 discloses an electrolyte supplying aperture, but does not explicitly disclose a tank removably connected to the torch.

23. Hoffman et al. discloses a method of clean conductive bodies using an electrolytic solution (abstract; same field of endeavor as JP'367). Hoffman et al. discloses a tank attached to a pump supplying electrolyte (para [0066]). It would have been obvious to one of ordinary skill in the art to modify the torch of JP'367 in view of Heller with Hoffman et al.'s tank because Hoffman et al. teaches such a tank effect for holding electrolyte (Hoffman et al., para [0066]). A tank that is attached to a system is inherently removably connected.

24. In further regards to claim(s) 9, JP'367 in view of Heller and in further view of Hoffman et al. does not explicitly disclose a tank comprising a capillary.

25. Akio discloses a method of maintain and providing electrolyte (in the same field of endeavor as JP'367). Akio discloses a tank comprising a capillary (col. 2, lines 6-18). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller in further view of Hoffman et al. with Akio's capillary because

Akio teaches that the capillary assists in maintaining the electrolyte hydration (Akio, col. 6-18). In regards to the limitation "for the re-entrance of air after the suction of the electrolytic solution," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

26. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'367 in view of Heller, in further view of Hoffman et al., in further view of Akio and in further view of Ophardt (US 6875539 B2)

27. In regards to claim(s) 10, JP'367 in view of Heller, in further view of Hoffman et al., in further view of Akio does not explicitly disclose the tank is the type of flexible casing.

28. Ophardt discloses a method of fluid dispensing an electrolytic fluid (abstract), in the same field of endeavor as JP'367. Ophardt discloses a tank comprising flexing casing (col. 8, lines 12-39). It would have been obvious to one of ordinary skill in the art to modify the apparatus of JP'367 in view of Heller, in further view of Hoffman et al., in further view of Akio with Ophardt's flexing casing because Ophardt discloses such a tank is capable of holding electrolyte and would be expected to hold electrolyte in a predictable manner since Hoffman et al. discloses that a tank also holds electrolyte. In regards to the limitation "for the re-entry of air," such a limitation is an intended use of the apparatus and does not patentably distinguish from the prior art. See MPEP 2114.

Conclusion

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS A. SMITH whose telephone number is

(571)272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on (571)-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

31. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NAS

/Alexa D. Neckel/
Supervisory Patent Examiner, Art Unit 1723